# R&S®Net Sensor

# IP application classification probe for network operators


ROHDE&SCHWARZ

Product Brochure | 03.00

# R&S®Net Sensor
# At a glance

## Key facts

- Versatile IP probe that can provide valuable data about subscribers and traffic
- Very high application and protocol classification rate thanks to the R&S®PACE leading embedded application classification and metadata extraction engine.
- Flexible and reliable reporting API that allows realtime reporting of counters and classification results to analytics systems.
- Deployable in mobile, fixed and converged networks
- End-to-end capture and statistical analysis system together with R&S®Net Reporter Very cost-efficient
- Available with flexible interface configurations for extended connectivity
- Part of the most comprehensive range of Rohde & Schwarz mobile network testing solutions

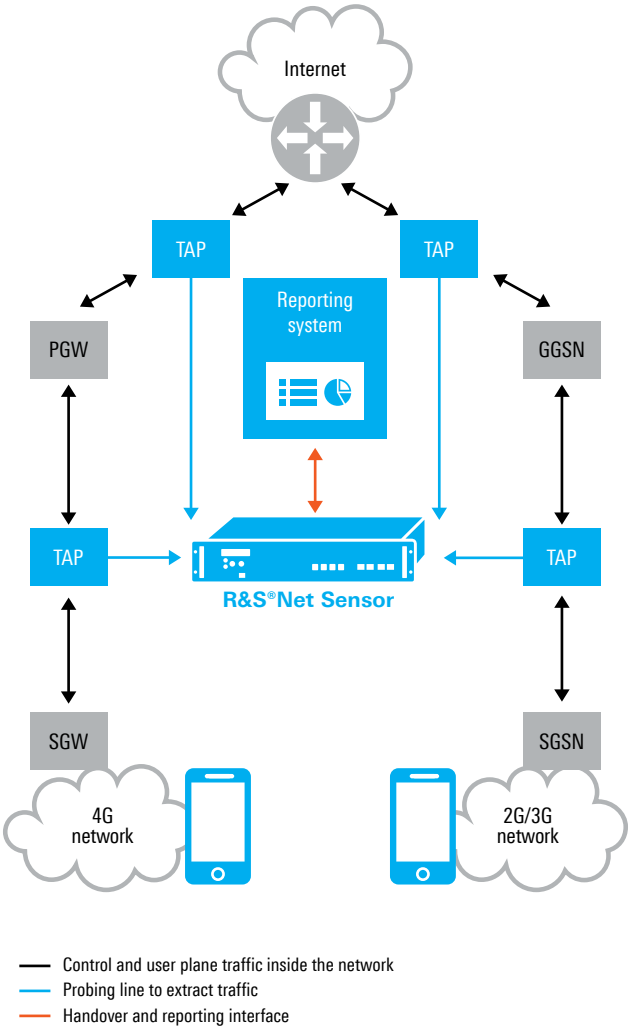
R&S®Net Sensor is a technically advanced, intelligent IP probe that allows network operators and service providers to extract meaningful network traffic and subscriber behavior data as well as identify statistical trends in mobile and fixed networks. When deployed in combination with an analytics system such as R&S®Net Reporter, it delivers valuable insights into the traffic on the operator's network for a better understanding of new trends, important subscriber behavior and their quality of experience. Providers can use this data to efficiently plan network capacity, introduce new services and generate additional revenue through targeted marketing.

R&S®Net Sensor uses the ipoque R&S®PACE leading application classification engine to deliver high accuracy application and protocol detection. The detection list covers the 2000 most used applications and protocols from all geographical regions and across various business fields. By providing the full classification vector for layer 3 to layer 7 and above, R&S®Net Sensor provides full traffic awareness and consistent performant reporting capabilities.

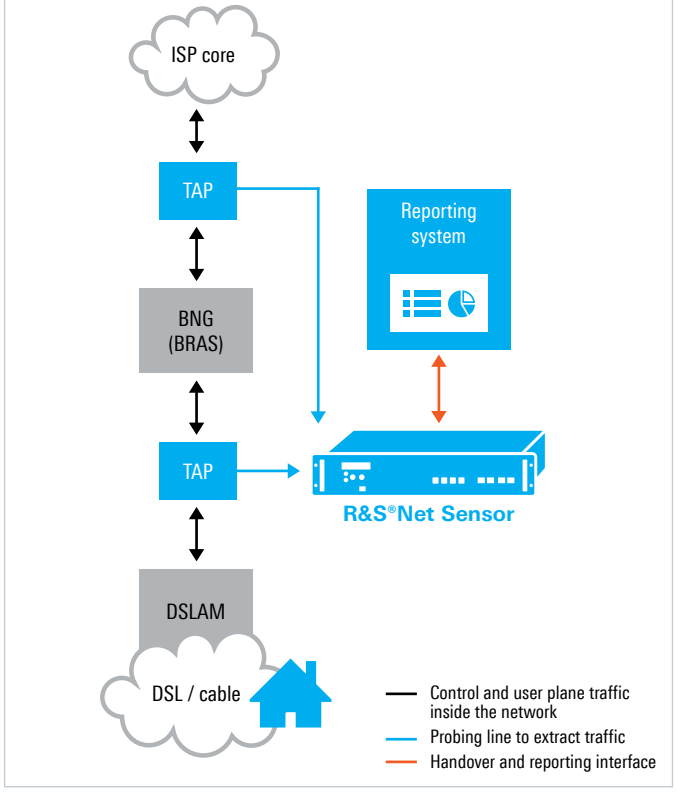
R&S®Net Sensor is designed to passively probe mobile, fixed and converged networks at full line speed. The classification results together with the control plane data (e.g.: GTP-C, RADIUS, DHCP) are reliably communicated to the storage, analytics and reporting systems for further processing and correlation.

Featuring a high-performance reporting API, R&S®Net Sensor ensures realtime flexible reporting, enabling downstream analytics to process and immediately present the available data. Due to its extensibility and high adaptability, the R&S®Net Sensor reporting API can be extended by adding new detections reported by the classification engine and additional types of reported data based on customer needs.

**R&S®Net Sensor deployment in mobile networks**



## R&S®Net Sensor deployment in fixed networks




## Operators can use R&S®Net Sensor to make the following decisions:

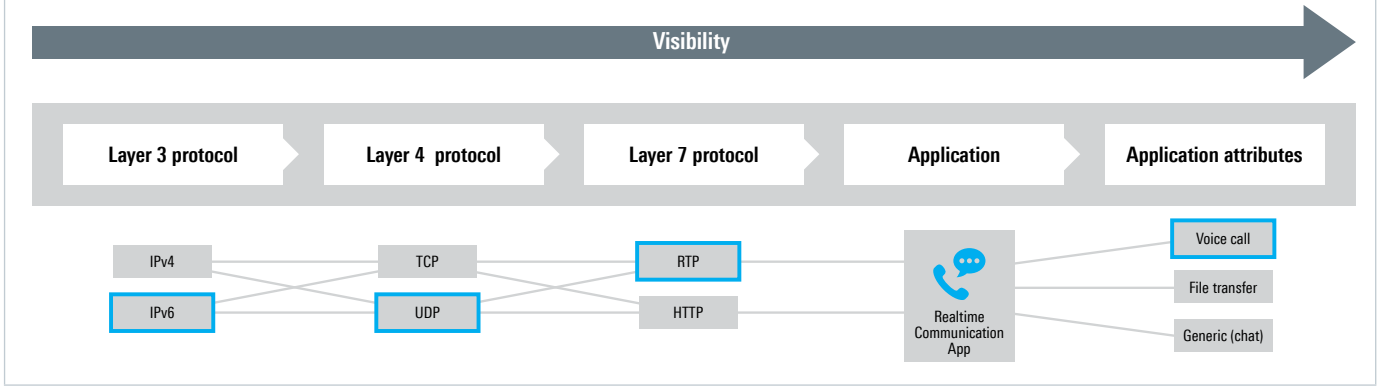
**Network management and planning:**

- Is better connectivity to certain content delivery networks necessary based on subscriber access frequency and throughput?
- What proportion of traffic is video? Should the video optimization capability be enhanced?
- What was the network traffic profile at a particular date and time when many customers complained of low data speed?
- Is it sufficient to invest in capacity expansion or is a traffic management solution required?

**Marketing & product management:**

- Do subscribers with a certain type of device consume more social media data? Should we market a bundled offer that includes an unlimited social media plan together with a certain type of phone?
- How do certain subscriber categories react to rate changes, offers, events, etc.? Use this knowledge to refine the marketing strategy.

## Classification vector results and application attributes for a Realtime Communication App voice call




In addition to the full classification vector, R&S®Net Sensor also provides the application attributes to map additional details to each detected application. As a result, it not only provides the full protocol split for layer 3 to layer 7, but also valuable extra information such as type of communications, application-specific activity, etc.

| FP60 Interfaces [1] | |
|---|---|
| Network port options [2] | 1 GbE RJ45 copper or fiber SFP interface<br>10 GbE SFP+ interface |
| Management port | 2 x RJ45 with lights out management Support |
| Console port | 1 x console port for RJ-45 connector |
| USB ports | 2 x USB 3.0 ports |

| FP60 General data [1] | |
|---|---|
| Dimensions (W x H x D) | 430 mm x 80 mm x 547.6 mm (16.9 in x 3.15 in x 21.56 in) |
| Weight | 18 kg (39.7 lbs) |
| Power supply | redundant power supply<br>AC: 100 V to 240 V, 50 Hz to 60 Hz, |
| Memory | 48 Gbyte RAM |
| Operating temperature / humidity | temperature range: 0 °C to +40°C / humidity: 5 % to 85 % at 40° C |
| Nonoperating temperature / humidity | temperature range: –20 °C to +75 °C / humidity: 5 % to 95 % |

1) Other hardware platforms available on request. Please contact your sales representative
2) For specific configuration please contact your sales representative

**About ipoque**

ipoque GmbH, a Rohde & Schwarz company, is a leading supplier of network traffic analytics and IP classification solutions to network operators and infrastructure vendors. Over 200 customers in more than 60 countries across the globe rely on ipoque to maximize network efficiency, improve the quality of experience for their subscribers and develop the intelligent communications networks of the future.

**About Rohde&Schwarz**

The Rohde&Schwarz electronics group is a leading supplier of solutions in the fields of test and measurement, broadcast and media, secure communications, cybersecurity, and radiomonitoring and radiolocation. Founded more than 80 years ago, this independent global company has an extensive sales network and is present in more than 70 countries. The company is headquartered in Munich, Germany.

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